

Coherent Jet Nozzles for Grinding Applications

ABSTRACT OF THE DISCLOSURE

A nozzle assembly and method is configured to apply coherent jets of coolant in a tangential direction to the grinding wheel in a grinding process, at a desired temperature, pressure and flowrate, to minimize thermal damage in the part being ground. Embodiments of the present invention may be useful when grinding thermally sensitive materials such as gas turbine creep resistant alloys and hardened steels. Flowrate and pressure guidelines are provided to facilitate optimization of the embodiments.